ABSTRACT OF THE DISCLOSURE

A semiconductor memory device comprises a ferroelectric element, an electric field applied to the ferroelectric element being controlled to relatively shift a position of a first atom with respect to a position of another atom and to store data at stabilized positions as remanent polarization, wherein the ferroelectric element stores two-bit information by having total four stabilized positions of the first atom, which include first stabilized two positions in a first direction and second stabilized two positions in a second direction perpendicular to the first direction.